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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,626	11/12/2003	Shinichi Takahashi	0941.68725	7983

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EXAMINER

KAYRISH, MATTHEW

ART UNIT	PAPER NUMBER
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2627

DATE MAILED: 06/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/706,626

Applicant(s)

TAKAHASHI, SHINICHI

Examiner

Matthew G. Kayrish

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Atsushi (Japanese Publication Number 11-016141).
4. Regarding claim 1, Atsushi discloses:

A head slider for a magnetic disk lifted above the magnetic disk by airflow generated by rotation of the magnetic disk, said head slider comprising:

A disk-facing surface having an air bearing surface (figure 25, item 5) and a recessed portion (figure 25, item 3) located behind said air bearing surface when viewed in a direction of the airflow;

An airflow guide part (figure 25, items 70, 50a & 50b) located in said recessed portion and guiding the airflow along the disk-facing surface of said head slider toward sides of the disk-facing surface.

5. Regarding claims 2 and 5, Atsushi discloses:

The head slider as claimed in claim 1, wherein the airflow guide part (figure 25, item 31) is formed to extend in directions each inclined at an angle with respect to a flow direction of the airflow (the guide parts each extend at an angle when viewed in figure 19c).

6. Regarding claim 3, Atsushi discloses:

The head slider as claimed in claim 1, wherein the airflow guide part (figure 25, item 31) includes a capturing part that captures dust included in the airflow (figure 25, item 26a & 26b).

7. Regarding claim 4, Atsushi discloses:

The head slider as claimed in claim 1, wherein the airflow guide part comprises:

A first guide part formed to extend from the vicinity of the center of the disk-facing surface to both sides of the disk-facing surface (figure 25a, item 70); and

A pair of second guide parts formed on opposing side surfaces of said head slider and continuing with said first guide part (figure 25a, items 50a & 50b).

8. Regarding claim 6, Atsushi discloses:

The head slider as claimed in claim 4, wherein one of the first and second guide parts includes a capturing part that captures dust included in the airflow (figure 25, item 3).

9. Regarding claim 7, Atsushi discloses:

The head slider as claimed in claim 1, wherein the airflow guide part comprises:

A first guide groove formed to extend from the vicinity of the center of the disk-facing surface toward both sides of the disk-facing surface (figure 25, inclined wall to the right of item 31); and

A pair of second guide grooves formed on opposing side surfaces of said head slider and communicating with said first guide groove (figure 25, inclined wall to the left of item 31).

10. Regarding claim 9, Atsushi discloses:

The head slider as claimed in claim 7, wherein, in the first guide groove, an inflow-side wall along which the airflow flowing along the disk-facing surface enters the first guide groove is an inclined surface, and an outflow-side wall along which the airflow flowing along the disk-facing surface is discharged is a vertical surface.

11. Regarding claim 10, Atsushi discloses:

The head slider as claimed in claim 1, wherein the disk facing surface includes a pair of front pads, located in front of and adjacent to said recessed portion when viewed in a direction of the airflow, and further wherein the airflow is guided between said front pads toward said airflow guide part (figure 25b, items 60a & 60b).

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Atsushi, in view of Utsunomiya (US Publication Number 6072662).
14. Regarding claim 8, Atsushi fails to disclose:

The head slider as claimed in claim 7, wherein one of the first and second guide grooves includes a capturing groove that captures dust included in the airflow, and the capturing groove is formed deeper than the first and second guide grooves.

Utsunomiya discloses:

The head slider as claimed in claim 7, wherein one of the first and second guide grooves includes a capturing groove that captures dust included in the airflow, and the capturing groove is formed deeper than the first and second guide grooves (figure 17, recess indicated by letter B).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include recesses portions which are formed deeper into the head slider than the guide grooves, as taught by Utsunomiya, because this will help to balance the head slider for a more accurate read/write signal from the magnetoresistive head element.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew G. Kayrish whose telephone number is 571-272-4220. The examiner can normally be reached on 8am - 5pm M-F.
16. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on 571-272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

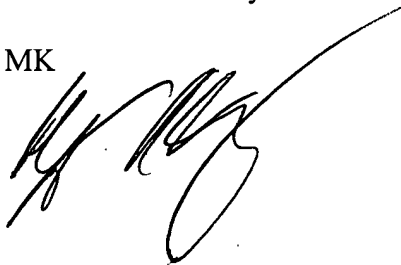
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17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Matthew Greco Kayrish

5/11/2006

MK



5/11/2006

  
ANDREA WELLINGTON  
SUPERVISORY PATENT EXAMINER